

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**FOIL when  $A \neq 1$  solution (version 4)**

**FOIL the expressions shown below:**

1.  $(-2x + 4)(-7x - 7)$

$$\begin{aligned} &(-2)(-7)x^2 + (-2)(-7)x + (4)(-7)x + (4)(-7) \\ &(14)x^2 + (14)x + (-28)x + (-28) \\ &14x^2 - 14x - 28 \end{aligned}$$

2.  $(-2x + 7)(3x - 7)$

$$\begin{aligned} &(-2)(3)x^2 + (-2)(-7)x + (7)(3)x + (7)(-7) \\ &(-6)x^2 + (14)x + (21)x + (-49) \\ &-6x^2 + 35x - 49 \end{aligned}$$

3.  $(4x + 8)(-9x - 6)$

$$\begin{aligned} &(4)(-9)x^2 + (4)(-6)x + (8)(-9)x + (8)(-6) \\ &(-36)x^2 + (-24)x + (-72)x + (-48) \\ &-36x^2 - 96x - 48 \end{aligned}$$

4.  $(9x + 6)(-5x - 8)$

$$\begin{aligned} &(9)(-5)x^2 + (9)(-8)x + (6)(-5)x + (6)(-8) \\ &(-45)x^2 + (-72)x + (-30)x + (-48) \\ &-45x^2 - 102x - 48 \end{aligned}$$

5.  $(8x - 5)(-4x + 6)$

$$\begin{aligned} &(8)(-4)x^2 + (8)(6)x + (-5)(-4)x + (-5)(6) \\ &(-32)x^2 + (48)x + (20)x + (-30) \\ &-32x^2 + 68x - 30 \end{aligned}$$

**FOIL the expressions shown below:**

6.  $(9x - 5)(4x + 7)$

$$\begin{aligned}(9)(4)x^2 + (9)(7)x + (-5)(4)x + (-5)(7) \\ (36)x^2 + (63)x + (-20)x + (-35) \\ 36x^2 + 43x - 35\end{aligned}$$

7.  $(-4x + 4)(5x + 9)$

$$\begin{aligned}(-4)(5)x^2 + (-4)(9)x + (4)(5)x + (4)(9) \\ (-20)x^2 + (-36)x + (20)x + (36) \\ -20x^2 - 16x + 36\end{aligned}$$

8.  $(2x + 6)(6x - 5)$

$$\begin{aligned}(2)(6)x^2 + (2)(-5)x + (6)(6)x + (6)(-5) \\ (12)x^2 + (-10)x + (36)x + (-30) \\ 12x^2 + 26x - 30\end{aligned}$$

9.  $(-2x + 3)(9x - 8)$

$$\begin{aligned}(-2)(9)x^2 + (-2)(-8)x + (3)(9)x + (3)(-8) \\ (-18)x^2 + (16)x + (27)x + (-24) \\ -18x^2 + 43x - 24\end{aligned}$$

10.  $(-4x + 4)(4x + 3)$

$$\begin{aligned}(-4)(4)x^2 + (-4)(3)x + (4)(4)x + (4)(3) \\ (-16)x^2 + (-12)x + (16)x + (12) \\ -16x^2 + 4x + 12\end{aligned}$$